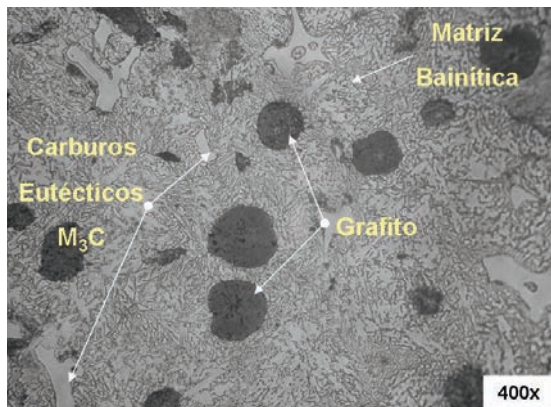


# SCTNPMO

HEAT TREATED MOLYBDENUM  
NODULAR IRON

## CHARACTERISTICS



This alloy represents nodular iron cylinders of the highest resistance. The balance between the elements as the chemical composition where the tenor of Molybdenum has a dominant effect, results in a microstructure with low density of M3C-type eutectic carbides and a predominantly bainitic matrix.

The manufacturing process used includes special fusion and casting techniques resulting in a microstructure characterized by a high graphite nodule count and a low fraction of carbides.

Nodular iron cylinders enriched with molybdenum have a substantially zero hardness gradient, as well as mechanical properties comparable to those of medium and high carbon steel cylinders. All parts manufactured with this quality have a normalized and tempered heat treatment to maximize their properties and microstructural characteristics, being the latter responsible for the high mechanical properties and excellent response to thermal fatigue.

This quality is widely used for roughing and intermediate stands for rolling of bars, billets and profiles.

## TABLE OF USES

	MILLS					
	Profiles			Bars		Hot Sheets
SCTNPMO	Rough	Int.	Finish	Rough	Int.	R1
38	•			•		
40	•			•		
45	•	•			•	•
50		•	•		•	•

## CHEMICAL COMPOSITION

C	Si	Mn	Cr	Ni	Mo	S	P
3.00	1.50	0.30	<	1.50	0.50	<	<
3.50	2.50	0.80	0.40	3.00	1.50	0.015	0.080

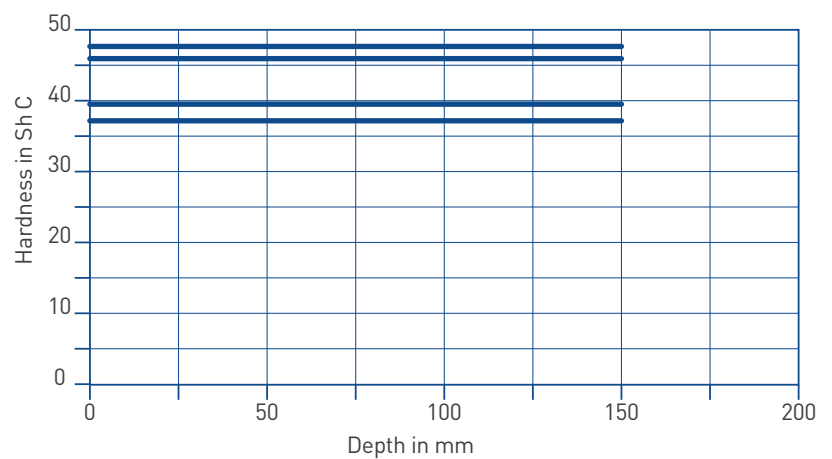
# SCTNPM0

HEAT TREATED MOLYBDENUM  
NODULAR IRON

## MECHANICAL CHARACTERISTICS

Tensile Strength (Mpa)	650 - 850
Flexural Strength (MPa)	900 - 1200
Elongation (%)	1.5 - 3.0

## HARDNESS GRADIENT



## FINAL PRODUCT

